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"NEC TENUI PENNÂ."

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IS THERE A CURE FOR HAY-FEVER?*

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According to the statistics of Roe, Daly, Sajous, Mackenzie, and others, this question can be answered in the affirmative for eighty per cent of the sufferers. In this paper I shall present a method of local treatment but recently proposed for the relief of this affection, not failing, however, to recognize the extreme importance of general medication, and by doing this to acknowledge that the cause of hay-fever is not purely local. Here I wish simply to discuss the part played by the tissues of the nose in its causation, and the relief to be had from the proper management of this factor, with the best means of accomplishing the desired end.

I do not think it well to refer to the many names by which this affection has been and is known, nor to discuss the many extant theories of its causation.

In 1882, Daly attributed the attacks "to local chronic disease, upon which the exciting cause acts with effect." In 1883, Roe advocated the same theory, and stated "that hyperesthesis is associated with, or occasioned by a diseased condition, either latent or active, of the naso-pharyngeal mucous membrane," and "that the removal of the diseased tissue in the nasal passages removes the susceptibility of the individual to future attacks of hay-fever." Later, in 1883, Sajous said that "hay-fever was due to an idiosyncrasy, on the part of certain individuals, to become affected by certain emanations," that "organic alteration of the surface of the nasal mucous membrane altered its sensibility and destroyed what morbid irritability might have attended the nervous filaments distributed over it," and furthermore that "hypertrophies of the nasal membrane increased its irritability and the intensity of the symptoms." Sajous says "there are three conditions which are essential factors in the production of an access of hay-fever." First, "an *external irritant*;" second, "a predisposition on the part of the system to become influenced by this irritant;" and third, "a vulnerable or sensitive area, through which the system becomes influenced by the irritant." We all recogize that certain substances, such as ipecac, pollen, etc., with certain individuals bring on directly all the symptoms of hay-fever. Bluchley has, by applying to a sensitive mucous membrane less than $\frac{1}{200}$ of a grain of an exciting substance, produced all the symptoms of hay-fever. Again, he demonstrated that the attack could be modified, and in some cases prevented, by purifying the inhaled air. These facts, with the periodicity of the accesses, would seem to prove that some local irritant must play an important part in the etiology of the affection.

Dust is considered the most common cause. Of what does dust consist? Of pulverized minerals, and horse manure, of pollen grains and microscopic fungi; in short, it represents almost every substance which is to be found in any particular locality. When one speaks of the dust of our roads and streets as a cause of this disease, he includes nearly all causes, for dust is surely a very compound substance. This dust may not have originated in the locality in which the patient experienced the access. It may have been imported in clothing and rags, or blown into the patient's habitat by the high winds. In certain localities, far famed as places which offer immunity to hay-fever sufferers, an attack recurs with many, if the winds blow from certain unusual quarters.

*Read before the Louisville Medico-Chirurgical Society, August 7, 1885.

Wyman, while at one of these resorts, experienced an access upon the opening in his presence of a bundle of rag-weed. The predisposition to asthma and hay-fever we know is often inherited. Sajous' second essential factor enters here. Sajous thinks, and rightly, too, that whooping-cough, which is an almost or wholly neurotic affection, is a predisposing cause, and that people who have had it are, in consequence, more susceptible to hay-fever. Of forty cases of hay-fever seen by this observer, all had had whooping-cough.

In commenting upon this neurotic element as an essential part of the affection, Sajous gives special attention to the origin of the premonitory symptoms, in a number of cases. Before referring to these, I wish to note here the distribution of nerves in the nose, and the connection of this organ with the general nerve system. Meckel's, or the spheno-palatine ganglion, is the center of distribution for the nasal nerves.

According to Gray, this ganglion has a motor root, the large petrosal of the facial, which joins the vidian nerve, a sympathetic root from the carotid plexus, through the vidian nerve, and a sensory root from the fifth nerve. The branches of this ganglion Gray divides into ascending, descending, internal, and posterior. The ascending branches go to the optic nerve, the sixth nerve, and the ophthalmic ganglion. The ophthalmic ganglion gives off the short ciliary nerves which supply the ciliary muscle and iris.

The internal branches supply the mucous membrane covering the superior and middle turbinated bones, that lining posterior ethmoidal cells and the upper and back part of septum, the mucous membrane behind incisor teeth, and some branches to the septum. The posterior branches are the vidian and the pterygo-palatine which supply the lining membrane on the back part of the roof of the nose and septum, the end of the eustachian tube, and the pharynx behind the eustachian tube.

Again, the nasal branch of the ophthalmic supplies the mucous membrane covering the forepart of the septum of the nose, the forepart of the outer wall of the nares as far as the inferior spongy bone, and joins the facial nerve. It gives off a ganglionic branch which enters the ciliary or ophthalmic ganglion, also the long ciliary nerves, which pass on to the ciliary body and iris, with the infra-trochlear branch which supplies the integument of the side of the nose, the conjunctiva, lachrymal sac, and caruncula lachrymalis. So it will be observed that the nerve-supply of the nose is connected with the whole of the cephalic portion of the sympathetic, which is composed of the ophthalmic, Meckel's, otic, and sub-maxillary ganglia, and through the vidian with the carotid plexus. It is also connected with the eighth pair through the carotid plexus, the eighth pair having three branches, namely, the glosso-pharyngeal, the pneumogastric, and the spinal accessory.

From this account it will be seen that the nerve connection between the lining of the nasal cavity and the general nerve system is as intimate as that of any other organ of the body; and if this be true, then why may we not have a train of reflex symptoms from diseases of this mucous lining analogous to those resulting from diseases of the uterus, glans penis, and stomach?

Now, as to the premonitory symptoms. Among the forty cases described by Sajous, one complains of a "tickling in the roof of his mouth a week before the access, another has dull pains in head and back two weeks before the onset, another has chills and shuddering, many complain of an itching of the lids and nose. One of my patients suffers from a feeling of general weakness and headache two or three weeks before the access, another of a laryngeal cough, and another of photophobia.

It is true that we have many thoroughly neurotic people who are not hay-fever sufferers, and again many cases of hypertrophy of the nasal mucous membrane which are entirely free of it, and these facts would seem to upset our theory of hay-fever and its causes. However, by referring to the three essential factors in its production, all doubters should, I think, be satisfied. One may have the neurotic elements and not the vulnerable or sensitive area, and *vice versa*. As Sajous says, "both systemic and local elements must exist simultaneously to render a paroxysm possible."

Now, as to the last of the three essential factors, "a vulnerable or sensitive area through which the system becomes influenced by the irritant."

One of the best proofs of the existence of these sensitive areas is the relief or cure of such a great number of cases by their discovery and destruction, the fact that hay-fever up to the discovery of these sensitive areas was incurable, and that now the disease is regarded as one of the most man-

ageable of the chronic affections of the nose. What other proof should be required?

But, again, all the symptoms of a hay-fever can be produced by gentle pressure with a probe on these sensitive areas. In one of my patients I can at will produce asthma by irritating the membrane lying over the posterior end of the turbinated bone. In another I am able to bring on all the head symptoms by irritating the central sensitive area. I have now under treatment a patient from Nashville, Tenn., who has asthma whenever a nasal polypus, from which she has suffered for five years, gets large enough to press on the posterior sensitive area, the symptoms disappearing when the pressure is removed.

As to the location of the tender spots: The anterior area is found on the anterior portion of the nasal septum and anterior portion of external wall of the nose, in front of the inferior turbinated bone. The central area is near the center of the inferior turbinated bone, where the nasal branches of the spheno-palatine ganglion join those of the ophthalmic. The posterior area is at the posterior end of the turbinated bone. Each of these areas have corresponding sensitive areas just opposite, in the septum.*

I have a patient under my care at this time who illustrates the effect of nasal hypertrophy upon the general condition. He is neurasthenic, and often suffers from a sense of general weakness and soreness of all the muscles of the body. When suffering in this way, he applied to me for the relief of a nasal obstruction which compelled him to sleep with his mouth open, with its usual train of bad effects, dry mouth, etc. He was extremely low spirited, and with the symptoms given was about as miserable as a person is ever wont to be. I saw that he had nasal hypertrophy, and made use of muriate of cocaine for the purpose of shrinking it; this enabled him to sleep with his mouth closed. By means of an eye dropper I threw into each side of the nose four drops of the four-per-cent solution, with this effect, it gave him perfectly free nasal breathing, such as he had not had for years. In a short time he was relieved of all his muscular soreness, and with it of all nervous depressson, but the drug made him extremely wakeful. This is the effect he always gets from the use of the cocaine, unless it be applied too frequently, when it fails to shrink the hypertrophy.

Many cases have been reported as relieved of hay fever by the destruction of the sensitive areas. The figure of success is at least 80 per cent of all cases treated.

As to the treatment: There are several means of destroying these areas. When the hypertrophy is very great, if possible, it should be snared off. They may also be destroyed by application of acids, such as chromic, glacial-acetic, and nitric; preference so far, however, appears to be given to the galvano-cautery. The latter is better because its action can be confined to the implicated space; yet it is very objectionable, for the reason that it is difficult to get a good battery, and that even the best are hard to manage; and again, if the exact amount of heat is not produced (cherry-red is the desideratum), either no effect or a bad effect will result. I give preference to chromic acid. It is easily applied, is painless when cocaine is used, and by means of an alkaline wash the extent of its action may be reduced to a minimum. I would here suggest the employment of a paste composed of cocaine and chromic acid. I have not tried this combination, but intend soon to do so. From five to twenty-five applications are necessary, and there should be an interval of from three to five days between the applications.

The time for treatment: Treatment should be commenced preferably from five to eight weeks before the time of the access, although it may be and often is begun after the onset and continued through the period of the attack. I forgot to mention that the posterior sensitive area is the seat of the cause of the asthmatic symptoms, the anterior of that of the head symptoms, and the middle of both, and that the asthmatic symptoms are often not reflex, but a result of the extension of the catarrhal inflammation to the bronchi.

Again, in the management of these cases, some few may be relieved by curing an existing nasal catarrh.

Sajous concludes as follows:

1. That as a result of heredity, or of diseases implicating markedly the nervous system, its nerve centers become abnormally sensitive, and are, therefore, inordinately influenced by the external elements to which they are naturally susceptible.

2. That, as a result of local disease, the portions of the nasal mucous membrane

*I would suggest here the possibility of a fourth sensitive area on the conjunctival surface.

over which the branches of the sphenopalatine ganglion and those of the nasal branches of the ophthalmic nerves are distributed become hyperesthetic and capable of acting as media for the transmission of impressions made upon their surface to the nerve centers.

3. That, when these two conditions coexist and when external elements to which the nerve centers are inordinately sensitive are present in the atmosphere, a paroxysm termed "hay-fever" is excited.

4. That the paroxysm can not take place unless the inordinate susceptibility of the nerve centers, the intra-nasal hyperesthesia, and the external irritating cause are present simultaneously.

5. That since one of the necessary elements, the external irritating cause, is present only at a certain time of each year, the paroxysm can occur only at that time.

6. That, as a consequence of the above, the absence of one of the three elements necessary to the production of a paroxysm will prevent its occurrence.

7. That by cauterizing by means of the galvano-cautery or acids the hyperesthetic portions of the membrane, their hyperesthesia can be permanently annulled.

8. That the medium between the external irritating cause and the systemic dyscrasia being thus obliterated, the periodical paroxysm termed "hay-fever" becomes impossible.

9. That there are in the nose three hyperesthetic areas, for which the terms posterior, middle and anterior areas are proposed, and which are individually or conjointly the principal seats of the hyperesthesia in hay-fever subjects.

10. That the posterior area is principally implicated when reflex asthma is the most prominent symptom of the affection.

11. That the anterior area is principally implicated when head symptoms are alone present.

12. That when head symptoms and reflex asthma are present, both anterior and posterior areas are implicated.

13. That the middle area may alone be the starting point of all the symptoms combined.

14. That catarrhal asthma has no relation with nasal hyperesthesia, being merely a result of the local inflammation occurring during a paroxysm.

In reference to treatment he suggests the following:

1. That all abnormal conditions of the nasal cavities, such as marked hypertrophies, polypi, exostosis, etc., must be eradicated before the superficial cauterization.

2. That the latter are productive of the best results when begun six weeks at least before the onset of the paroxysm.

3. That the treatment can be instituted during a paroxysm, the latter being arrested in some and beneficially modified in others.

4. That the immunity against "hay-fever" depends upon the thoroughness with which the treatment is conducted.

LOUISVILLE, KY.

PRIMARY LATERAL SPINAL SCLEROSIS.*

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The disease designated by different authors as primary lateral spinal sclerosis, spastic spinal paralysis, spasmodic tabes dorsalis, is rare, and only recently has been recognized as a distinct affection, principally through the writings of Erb, 1875, and Charcot, 1876. Seguin, of New York, in 1873 recorded five cases of what he termed tetanoid paraplegia, and to him belongs the credit of priority in describing the symptom group. The disease comes on very gradually, is protopathic in origin, is associated with systematic, symmetrical sclerosis of the lateral columns of the cord in the crossed pyramidal tract; the sclerosis is not a secondary degeneration due to a lesion higher up in the cord or the brain. The disease is an affection of adult life, generally appearing between the ages of twenty and fifty years. According to most writers, males are more liable to the disease than females. In forty-nine cases cited by Althaus, there were twenty-four males and twenty-five females. The real cause of the disease is unknown; the neurotic temperament is marked in many cases; external injury, rarely syphilis, scarlet fever, typhoid fever, and other acute diseases may be followed by it. Brunelli, of Rome (International Medical Congress, 1881), reported eleven cases occurring near Rome, caused by eating *Lathyrus cicera*. The disease is attended by loss of power in the extremities, with muscular rigidity, spasmodic twitchings and tremor, and an increase in the tendon reflexes. The muscles are well nourished, and there are no disorders of sensation.

* Read before the Kentucky State Medical Society, June 26, 1885.

The positive symptoms, *i. e.*, muscular contraction and increased reflexes, and the negative symptoms, *i. e.*, no sensory, vesical, or rectal troubles, show unmistakably that the lesion is located in the crossed pyramidal tract. The symptoms are striking, yet the disease seems so far to have eluded the grasp of the pathologist. Ross, Bastian, and others, attribute to Drs. Dreschfield and Morgan, of Manchester, England, the honor of being the first to have proved by dissection the connection of the symptoms of the disease with sclerosis of the lateral columns in a primary and uncomplicated case of the disease.

The account given by Dr. Dreschfield (Transactions of the International Medical Congress, London, 1881) states that the giant cells of the anterior cornuæ were diseased. Althaus, in his recent work on Sclerosis of the Spinal Cord, claims that this case was of the amyotrophic variety. The only case which he accepts as of undoubted and uncomplicated primary lateral sclerosis is the one recently recorded by Minkowsky,* occurring at the University Hospital of Königsberg, under the care of Professor Naunyn. The patient was a woman, aged nineteen years, suffering with secondary syphilis. Fourteen months after admission the patient died. Microscopical examination of sections of the cord showed sclerosis of the postero-lateral columns, corresponding to the crossed pyramidal and direct cerebellar column. The gray matter of the anterior cornua was perfectly normal. Primary lateral sclerosis is a very rare disease, and there is danger of confounding it with the comparatively common condition of secondary descending degeneration, which may produce the same motor symptoms. A diagnosis of primary lateral sclerosis is only justified when the history shows a very slow and chronic onset, and there is no lesion present which could give rise to secondary degeneration. Special attention should be given to the condition of sensibility and to the state of the vertebral column. The disease is especially liable to be confounded with transverse myelitis. Cases of transverse myelitis of the dorsal region, in which the sensory disorders which were present at first have disappeared, while the motor phenomena have remained, are extremely liable to be confounded with primary lateral sclerosis. In the latter disease there are no sensory disorders. Motor rigidity and weakness are developed together; rigidity is more marked than paralysis, and there is no muscular atrophy at the upper level of the paralysis. Hughes Bennet has recently drawn attention to the fact that young women may have all the symptoms of primary lateral sclerosis, and he laments that there is not a single point by means of which a diagnosis can be made.

Though it is generally easy to distinguish the functional from the organic lesion, yet the fact remains that in some cases competent observers have been able to differentiate sclerosis and pseudo-sclerosis only on the post-mortem table. Charcot claims that the lesion in primary sclerosis is wedge-shaped, and extends exteriorly to the pia mater and interiorly as far as the posterior cornua. This peculiarity in the localization of the disease, he claims, distinguishes it from secondary lateral sclerosis consequent on cerebral injuries; the lesion in this case being rounded, and not extending exteriorly as far as the pia mater, and also from sclerosis following myelitis, etc., when a small layer of healthy white matter remains between the posterior cornua and the sclerosed tissue.

The disease is probably the most chronic of any spinal trouble; it may extend over a period of many years; uncomplicated cases do not tend to shorten life. The disease is liable to extend into the anterior cornua, or the postero-external columns, wasting, bedsores, cystitis, etc., supervening; death being due to exhaustion or some intercurrent complication. Cases of recovery are recorded; I am skeptic enough to doubt the correctness of the diagnosis. In the line of treatment but little is to be expected; arsenic, bromides, nitrate of silver, anti-syphilitics, galvanism, and water-cure, have each their advocates.

The following brief notes will give you a good clinical picture of the disease. I gave the case the severest scrutiny and feel justified in my diagnosis:

In June, 1883, Mr. B., of Tennessee, consulted me on account of a peculiar stiffness of his legs and great difficulty in walking. Mr. B. was twenty-seven years of age, unmarried, and of rather slight stature, though compactly and well built. He gave a good family history on both sides. As a child he was always healthy and active, he was reared in the country; when old enough he had plowed and performed the usual farm work. He had never been sick prior to the onset of his present trouble.

* Deutsches Archiv fur Klin. Med., vol. xxxiv, page 433. 1884.

In the spring of 1874 he first noticed a tired, heavy sensation in his legs. He attached no importance to these symptoms, as he thought they were due to hard work. Shortly his feet began to drag, his legs feeling very stiff and heavy, his toes turn in and he easily stumbles, his knees knock together, and his legs tremble violently when he attempts to walk. He kept his bed for some time, hoping in vain for improvement. He could walk only by the aid of a cane. His general health was good. Mr. B. now left his farm and went to Nashville, where he was closely confined for several years as a book-keeper.

Present condition: on examination I fail to get any history of syphilis, or injury to head or back. The muscles of the legs and back are well developed; there is no atrophy; no change in the electrical reaction of the muscles; he has a marked spastic gait, the posterior leg muscles are very rigid, his heels are drawn up, and in walking his toes drag and appear to stick to the floor, his knees lock and strike together, his body sways; back strongly arched and chest thrown forward. He can cross his legs only with the greatest difficulty. When he is tired or excited, or standing in an awkward posture, his legs tremble violently. When sitting, if he presses his toes on the floor, violent reflex trembling is excited in the legs; ankle and knee clonus are well marked, superficial reflexes not as well marked as the deep. He has never had any symptoms referable to the bladder or rectum. He has never had any head symptoms. He does not complain of pain any where, but on close questioning he acknowledges that when he has walked much or overexerted himself, he has a dull, aching sensation in the lower dorsal region and in the calves of his legs. There are no tender spots, and no evidence of any thing abnormal about the spinal column.

In the discussion following the report of this case to the Louisville Medico-chirurgical Society, Prof. J. W. Holland stated that several years ago he had seen a patient with Prof. W. O. Roberts, whom he thought presented all the features of primary lateral sclerosis, and he had so diagnosed it. Prof. Roberts stated that the patient, a woman, aged nineteen years, had been confined to her bed for several months; recently bedsores and cystitis had developed. The patient dying within a few weeks, Prof. Roberts kindly notified Prof. Holland and myself that we might make an autopsy. On account of difficulties interposed by friends of the deceased, the brain and cervical portion of the cord were not examined; the dorsal and lumbar portions of the cord only were carefully removed.

The cord externally presented nothing abnormal. It was suspended in Muller's fluid for several days, and then, with a freezing microtome, I made a large number of very thin sections. These sections to the naked eye revealed a dull, grayish, waxy patch in the lateral columns. Sections were stained in carmine, picro-carmine, aniline blue, and osmic acid. Carmine and picro-carmine gave the best results. The sections I pass around show beautifully the deeply-stained diseased patches in the lateral columns, extending from the posterior cornua to the periphery. Sections from the dorsal regions, examined under the microscope, reveal no disease of the gray matter; the ganglionic cells are numerous, well-formed, and present no evidence of granular or other degeneration. The disease is limited to the lateral columns proper. The nerve-tubes are almost entirely destroyed, the neuroglia greatly overgrown, numerous spider cells, and in some sections oil globules and amyloid bodies are seen. At the lumbar enlargement the sclerosed patch in the lateral columns is not so extensive. A slight patch of sclerosis is seen in the postero-external columns. The ganglionic cells are apparently healthy. The question arises, is this a case of primary sclerosis? The existence of bedsores and cystitis point to an extension of the disease to the gray matter. Other than a slight patch of sclerosed tissue in the postero-external columns in the lumbar region, I am unable to detect any disease in the gray matter.*

There is one flaw in the case, viz., not examining the brain and cervical cord; but from the history of the case, and the microscopic appearances of the sections from the dorsal and lumbar cord, the lesion being symmetrical, and presenting all the features as laid down by Charcot and Bouchard, as distinguishing primary from secondary degeneration, I am inclined to adhere to Professor Holland's original diagnosis, and class this among the few cases of primary lateral sclerosis in which a post-mortem examination has demonstrated the connection between the lesion and the symptoms.

LOUISVILLE.

*A number of sections were shown under the microscope, and micro-photographs projected on the screen with magic lanterns

Miscellany.

THE IMPORTATION OF CHOLERA.—Those familiar with the history of cholera among the Mohammedan pilgrims are aware that since the abolition of caravans, and the transportation of pilgrims by steamers, very much fewer cases of cholera occur at Mecca and along the land-route from Dejeddah. It is because all are kept, so to speak, in a certain lane, where they are under constant observation; their food and hygienic surroundings are more carefully regulated, and cases occurring can be promptly treated and guarded. The same is true of steamers bringing emigrants to this country. With competent medical officers, isolated hospitals, absolute cleanliness of attendants, and prompt disinfection of discharges, the disease should be limited to those who had contracted it before coming on board, and be virtually suppressed by the time of their arrival at any one of our seaports.—*Dr. S. Oakley Vanderpoel, in Science (Sanitary number.)*

THE Detroit Lancet says that Dr. J. S. Billings is a wonderful man. He is a surgeon of the U. S. A., edits the Index Medicus, prepares the volume of the index catalogue of the library of the Surgeon-General of the U. S. A., lectures at the Johns Hopkins University, fills the chair of hygiene at the Columbia College, New York, and lately has been elected to the chair of sanitary engineering in the same institution, To those who take this course, which is to continue four years, the college will grant the degree of Sanitary Engineer.

OLIVE OIL AS A MENSTRUUM FOR COCAINE. Dr. Andrews, of New York, at the recent meeting of the American Ophthalmological Society, said that the plan of dissolving cocaine in oil seemed to insure longer contact of the remedy, and that a smaller quantity was required. But as the cocaine salts were not soluble in olive oil, the alkaloid was preferable, only requiring a few minutes of gentle heating in a water-bath to dissolve it.

BLUE-LICK WATER IN SKIN DISEASES.—Dr. J. J. Thomas reports, in the Medical and Surgical Reporter, a severe and obstinate case of lichen ruber cured by a course of Blue-lick water, after other forms of medication had failed.

THE BRITISH MEDICAL ASSOCIATION AND HOMEOPATHY. — From the report of the Council of the British Medical Association we learn that the Association has had under consideration the admission of homeopaths. The report is unfavorable to their admission, but is opposed to the expulsion of those who have already been admitted to their ranks.

SPONGES AS MUSTARD POULTICE VEHICLES.—Dr. Richardson, in the Asclepiad, suggests that a sponge be used as the carrier of mustard for poultices. The sponge is saturated with the mustard paste and covered with a cloth. When it becomes dry it can be moistened, warmed, and reapplied.

THE COCAINE HABIT.—Dr. Love reports, in the St. Louis Medical Journal, a case of the opium habit cured by the use of cocaine; but found that when the cure was about complete the cocaine habit had been formed, which was as troublesome and as obstinate as the original disease.

JOURNALISTIC CHANGE. — The Medical Chronicle of Baltimore has become consolidated with the Philadelphia Medical Times, and in the future the able editor of this valuable journal will have the co-operation of Dr. Rohé in its editorial management.

DR. L. M. BINGHAM, of Burlington, Vt., has been recently appointed Professor of General Surgery in the medical department of the University of Vermont, as the successor of the late Dr. J. L. Little.

DR. J. S. DELAVAN, of Albany, a member of the New York State Board of Health, was drowned in Tuppers Lake, in the Adirondacks, on August 7th.

THE mixture of equal parts of camphor and animal charcoal is recommended as an application to offensive and painful eschars and ulcers.

THE number of resignations from among the officers of the proposed International Medical Congress now numbers one hundred and twenty.

PROF. MILNE-EDWARDS died in Paris, on July 29th, in the eighty-fifth year of his age.

ALBUMINATE of tannin is highly spoken of in the diarrhea of infants.

THE INFLUENCE OF PILOCARPINE AND ATROPINE ON THE SECRETION OF SWEAT.—The Paris correspondent of the British Medical Journal says that M. Judice, in a communication on the influence of pilocarpine and atropine on perspiration, made before the Biological Society, stated that if a dog's spinal cord be cut between the eighth and ninth dorsal vertebræ, its paws become the seat of intense perspiration. This appears to prove that there is a spinal nerve center which regulates the secretion of sweat. After dividing the sciatic nerve, if the peripheral end be stimulated, the corresponding paw perspires profusely. The sciatic nerve is simply a transmitting agent; it establishes communication between the medullary and the peripheral nerve centers. If, instead of stimulating the peripheral end of the sciatic, the nerves be left intact, and pilocarpine be administered to the animal, the perspiration is equally intense. If the nerve be cut and pilocarpine administered, the perspiration is normal. It may, therefore, be concluded that pilocarpine does not act on the glandular elements, but on the nervous system. Atropine produces the opposite effect to that provoked by pilocarpine.

SYRUP OF HYDRIODIC ACID IN ACUTE RHEUMATISM.—Dr. James Craig (New York Medical Journal) speaks highly of the syrup of hydriodic acid in the treatment of acute inflammatory rheumatism. It shortens the duration of the disease, relieves the pain, reduces the temperature, and leaves the patient without heart complications. The dose generally given is two to three teaspoonfuls in a wine-glass of water, every two hours, according to the indications. He claims that it also acts well in subacute rheumatism, but has no effect in the chronic form of the disease. Numerous cases are added showing its efficacy.

MR. J. GREIG SMITH (British Medical Journal) submits the following rules for guidance in operating for acute intestinal obstruction:

1. Make the incision in the middle line below the umbilicus.

2. Fix upon the most dilated or the most congested part of the bowel that lies near the surface, and follow it with the fingers as a guide to the seat of obstruction.

3. If this fail, insert the hand, and carry it successively to the cecum, the umbilicus, and the promontory of the sacrum.

4. If this again fail, draw the intestine out of the wound, carefully cover it until increase of distension or congestion, or both, in one of the coils gives an indication that the stricture lies near.

5. If there be considerable distension of the intestines, evacuate their contents by incision, and suture the wound. Never consider an operation for intestinal obstruction inside the abdomen finished, until the bowels are relieved from overdistension.

6. Be expeditious, for such cases suffer seriously from shock. The whole operation ought to be concluded in half an hour.

THE Medical Record says, "The last census reports show that the men and women of Kentucky are the tallest in the world, owing, we doubt not, to their good doctors and the Blue-grass whisky; which reminds us of the observation of an acute physiologist, who says that man is composed of one part solids and two parts water, unless he is born in Kentucky."

EX-SURGEON-GENERAL P. S. WALES has been found guilty of neglect of duty by a naval court-martial, and sentenced to suspension from rank and duty for five years.

ARMY MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army, from Aug. 8, 1885, to Aug 15, 1885:

Colonel John Campbell, Surgeon, granted leave of absence for one month. *First Lieutenant Francis J. Ives*, Assistant Surgeon (recently appointed), ordered for duty in Department Platte. (S. O. 184, A. G. O., August 13, 1885.) *Captain Thomas F. Azpell*, Assistant Surgeon, retired from active service August 10, 1885. (S. O. 181, A. G. O., August 10, 1885.) *First Lieutenant A. R. Chapin*, Assistant Surgeon, granted one month's leave, to take effect when services can be spared by Commanding General Department Missouri, with permission to apply for one month's extension. (S. O. 179, A. G. O., August 6, 1885.) *First Lieutenant Philip G. Wales*, Assistant Surgeon (Ft. Coeur d'Alene, Idaho), ordered for temporary duty at Boise Barracks, Idaho. (S. O. 130, Department Colorado, August 1, 1885.)

APPOINTMENT.—*William P. Kendall*, to be Assistant Surgeon U. S. Army, with the rank of First Lieutenant, to date from August 12, 1885.

OFFICIAL LIST of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service for the two weeks ended August 15, 1885:

Bailhache, P. H., Surgeon. To proceed to Delaware Breakwater Quarantine as Inspector. August 15, 1885. *Stoner, George W.*, Surgeon. Granted leave of absence for thirty days. August 10, 1885.

The Louisville Medical News.

Vol. XX. SATURDAY, AUGUST 22, 1885. No. 8.

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THE PLEURO-PNEUMONIA OF CATTLE.

Reports of the prevalence of this loathsome and contagious disease among the cattle of certain localities in Illinois and Kentucky, during the past year, have operated already to the serious prejudice of beef-culture in these States, and h ve given the stock farmers no little concern lest the pest should become epidemic and suspend their occupation for a time indefinitely long.

The beef-eaters also have begun to evince their disrelish of the situation, and in view of recent vague rumors of plague-infected herds not far from Louisville, some timorous persons known to us have for some weeks eschewed their favorite steaks and roasts, and have eliminated milk from their daily bill of fare.

Whether the pleuro-pneumonia of cattle can be transmitted to the beef-eating man, the veterinary surgeons do not tell us; but that it is a most insidious, latent, persistent, contagious, infectious, certain, and malignant destroyer of bovine beasts, the loathsome carcasses of many cattle in all infected districts testify beyond doubt, and, on general principles, a beef fast would be both decent and prudent in localities holding cattle afflicted with the disease; for, if accounts be true, cattle, fat, lively, and having every outward sign of health, may hold within the insidious germ, and when killed discover in the carcass no specimen of pathological anatomy save the lungs or other viscera; and since these would not be likely to stimulate his customer's appetite for beef, it is probable that the honest butcher would keep them out of sight.

The Illinois law-makers are dealing effectively with this problem in that State, but there is no law in our State which provides specifically for the proper disposal of infected cattle, and if there be competent inspectors of slaughter-pens and slaughtered animals on duty at the times of killing, they wear invisible coats. But while this picture is nauseating if not appalling, it is refreshing to learn that the view is much less ugly than it has been painted. Our State Board of Health has taken the matter in hand, and through the warm encouragement of the Governor, the hearty co-operation of the Department of Agriculture at Washington, the pecuniary help of the cattle men, and the zeal of the board's able Secretary, Dr. J. N. McCormack, the cause for alarm dwindles to a point and the disease seems to be snugly under control.

This gentleman has just returned from a tour of the supposed infected districts of the State, and we learn from his published statement in the daily press (Louisville Courier-Journal, Aug. 18, 1885) that "the disease is confined entirely to a small district in Harrison County, where it has existed for more than a year." Pleuro-pneumonia was imported into this State from an infected herd of Galena, Ill., by certain stockmen, through the media of fifteen cows bought at that place in the summer of 1884. To this herd all cases of the disease in Kentucky can be traced.

The Secretary believes that every cow that has been exposed to the disease is found. The number exposed is 152, and the number now sick, 40. The infected stock is isolated and in quarantine, being

maintained at the expense of the cattle men of the State, and kept under the eye of Dr. W. H. Wray, of New York, a veterinarian of large experience, who comes to his charge under the direction of the Department of Agriculture at Washington.

The cost of the infected brutes has been estimated, and promising schemes for the prompt eradication of the disease are under discussion.

The Secretary moots the question as to whether or not our legislators will wake up to the necessity of stamping out the disease at once by making the necessary appropriation. Twelve thousand or fifteen thousand dollars will probably do the work in Kentucky, and $200,000, it is said, would wipe it out of the United States. Says he:

"But no man can estimate what it will cost in a few years, when the cattle on our Western plains and the stock-pens and cars of the country have become infected. If the annual loss in England is $10,000,000 with 6,000,000 cattle, it is difficult to conceive what ours would be with 40,000,000."

This is true; but the following equation gives a figure which the whisky and tobacco fostering legislators of America might wisely contemplate: 6,000,000 : 10,000,000 : : 40,000,000 : x. The commercial importance of this question is evident beyond doubt, but its influence as a factor in the problem of public health is matter for prompt and serious discussion.

DR. W. K. BOWLING.

This venerable physician died suddenly at his home on Cumberland Mountain near Nashville, Tennessee, on the morning of August 6th.

Dr. Bowling was a man of vigorous intellect and strikingly original character. He was a pioneer in Western medicine, and by his contributions to medical literature, and teaching in the medical schools, did much for the advancement of science, and made for himself an enviable reputation.

The contemporary of Drake, Yandell, Gross, and Bell, he was, like these, for many years an acknowledged leader in the ranks of medicine, and gave without stint his time and his talents to work which had for its aim and end the reform of abuses and the enlargement of the sphere of professional influence.

He wrote with grace and facility, and though quick to discover merit and lavish of praise when worthy men and objects were his theme, there was in him a vein of sarcastic humor which made him a formidable antagonist when provoked to controversy.

Dr. Bowling filled many places of honor and trust at various times during the long period of his professional career. The most exalted of these was the presidency of the American Medical Association at its meeting in Louisville in 1875. His dignified bearing upon that occasion and brilliant handling of the vexed question of medical education in his presidential address are still in the memories of many of our readers.

Under the admonitions of old age he had lived for some years in retirement, doing little in a professional way beyond the writing of occasional essays for current medical literature. He dies at the ripe age of seventy-seven years. His name belongs to the history of nineteenth century medicine, and will there find fit place among the worthies of his day.

Bibliography.

Transactions of the New York State Medical Association for the Year 1884. Volume I. Edited for the Association by AUSTIN FLINT, M.D., of New York County. 8vo, pp. vii and 654. New York: D. Appleton & Co. 1885. Price, cloth, $5.

This volume is elegant in appearance and rich in contents, and possesses for the reader of current medical literature both scientific and medico-political interest. As is well known, the New York State Medical Association was founded in 1883, for the benefit of such members of the profession in the State as refused to worship that golden

image called the New Code, which the Nebuchadnezzar of Gotham Specialism had set up.

Its first meeting was held in New York City in November, 1884, with an attendance of two hundred and forty-two fellows, thirty-one delegates from other associations and numerous invited guests from neighboring cities.

The meeting was noteworthy in the scope and character of the scientific work which it unfolded, but still more so in the fact that it was a substantial protest against the code schism, and demonstrated to the profession at large that the old standard of medical ethics had, in the birthplace of the new heresy, a large and influential following.

In this volume is published the minutes of the convention which led to the organization of the Association, and, since these contain the salient points of the old and new code controversy, they give to the volume a prominent feature of historical interest. The articles of incorporation of the New York Medical Association and the business proceedings of the first meeting are also to be found in the volume, these two departments being very appropriately sandwiched by the full text of the authorized code of ethics. These items, however, occupy a small portion of the book, more than five hundred of its six hundred and sixty-one pages being devoted to scientific addresses and essays. Four of the former and forty-six of the latter were read either in full or by title, and appear in the published proceedings. These papers, all interesting, and some of high scientific merit, are well ballasted by fit discussions. The eminent editor has done his work with characteristic skill, and the publishers have made a beautiful book.

Monthly Health Bulletin of Ontario for May and June, 1885. P. H. Bryce, M. D., Secretary.

Shadows in the Ethics of the International Medical Congress. By Levi Cooper Lane, A. M., M. D., Professor of Surgery in Cooper Medical College. San Francisco. 1885.

Voice in Singers. Read before the Ohio State Medical Society, June 4, 1885. By Carl H. von Klein, A. M., M. D., of Dayton, Ohio. Price, twenty-five cents. Hann & Adair, printers, 26 North High Street, Columbus, Ohio. 1885.

Inebriism; a Pathological and Psychological Study. By T. L Wright, M. D., member of the American Association for the Cure of Inebriates. Cloth. 12mo, pp. 222. Price, $1.25. Columbus, O: William G. Hubbard. 1885. For sale by the author. Address Dr. T. L. Wright, Bellefontaine, O.

Diseases of the Tongue. By Henry T. Butlin, F. R. C. S., Assistant Surgeon and Demonstrator of Practical Surgery and Diseases of the Larynx, St. Bartholomew's Hospital, lately Erasmus Wilson Professor of Pathology at the Royal College of Surgeons. Illustrated with chromo-lithographs and engravings. Limp cloth, blue edges. 12mo, pp. viii and 451. Philadelphia: Lea Brothers & Co. 1885.

Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The *Semaine Médicale* has reproduced a note by Dr. Nothnagel, of Vienna, on the pigmentation of the skin in Addison's disease, and as it contains a new theory on the mechanism of this affection, I have thought it sufficiently interesting to bring it to the notice of your readers. According to Dr. Nothnagel, the coloring matter in this disease proceeds direct from the blood, and is not the result of a metabolic action of the cells of the Malpighian bodies; but the author gives no explanation as to the manner in which the coloring matter leaves the vessels to be deposited in the epidermis. Dr. Riehl, former assistant to Kaposa, had occasion to examine four cases of Addison's disease, and found the confirmation of Dr. Nothnagel's opinion. Moreover, in examing the arterial vessels of the skin, he found that not only where the skin was discolored, but also in parts where it was not, the parieties of the vessels were altered, not only the adventitious but also the middle tunic. Dr. Riehl therefore concludes that the unaltered blood globules pierce the altered parieties of the vessels and pass, after having undergone divers modifications in the skin. He found thromboses in three of the four cases referred to. As the vascular alterations exist in the vessels of the viscera as well as in those of the skin, Dr. Riehl considers that the vascular alterations must have preceded the formation of the thromboses.

The tincture of arnica is an old household remedy, and is employed externally and internally; but it would appear, from a discussion that lately took place at the Society of Veterinary Medicine, that its use is not free from danger. The good effects from the tincture are simply attributable to the alcohol it contains; but when the tincture is used too freely it produces great irritation, and this property was said to be due to the presence of an insect in the flowers, but M. Mégnin endeavored to prove that it was to the flower itself that the irritating property may be ascribed, in which it is inherent. M. Mégnin had an opportunity of verifying this while encamped in the Forest of Orleans, where the "*Arnica montana*" abounds; he there observed that the insects found on this flower, and which belonged to the species "*Cryptocephales globicollis*," had none of the vesicating properties of the cantharidis. It has been long known that the powder of this flower is sternutatory, and it is to this property that is due the popular term of the "*Tabac des Vosges*," by which it is known. Practitioners must have occasionally observed an eczematous eruption produced by the application of the tincture of arnica which may be explained by the above note.

In presenting his work to the Société Médicale des Hôpitaux, on blenorrhagia in women, M. Martineau drew attention to the proofs he had collected in his hospital and private practice of the action of the gonococcus as a cause of this disease. According to M. Martineau, blenorrhagia is always specific and virulent, and can not be contracted from a woman who is not affected by it. In other words, no leucorrheal or other discharge can give blenorrhagia, for like produces like. M. Martineau destroys the gonococcus by cauterizing the follicles with the aid of the galvano-cautery, and by the local application of corrosive sublimate to the parts affected.

As cocaine is now so extensively employed in medical as well as surgical practice, it is worth knowing that this alkaloid, which is readily decomposed, may be preserved for an indefinite time by the addition to it of a small quantity of corrosive sublimate, as in the following formula, proposed by Dr. Darier: Hydrochlorate of cocaine, 50 centigrams; corrosive sublimate, 2 milligrams; distilled water, 10 grams. The whole to be boiled together, and after allowing it to cool it is to be filtered and preserved in a glass-stoppered bottle. This solution has the advantage of not only retaining the anesthetic properties of the cocaine, but the mixture itself is rendered aseptic. With this solution, which is not irritating, one drop alone suffices to produce temporary anesthesia of the cornea. If it is desired to obtain a more profound anesthesia and more durable, it will be sufficient to instill five or six different times, and at intervals of three minutes, one or two drops. In fifteen to twenty minutes the iris itself becomes insensible and the pupil dilated.

In connection with this subject M. Fano, a well-known ophthalmologist, writes:

"Cocaine possesses strong mydriatic properties; it has the advantage over atropine in not causing any, or scarcely any, disturbance of vision. It is therefore preferable to employ cocaine to obtain dilatation of the pupil in the cases where it is desirable to examine the fundus of the eye with an ophthalmoscope. In iridectomy operations complete anesthesia may be obtained with cocaine provided the instillation be renewed after the paracentesis of the anterior chamber. The preparation indicated above being antiseptic, there would be no danger attending it if it penetrated into the anterior chamber. In short, almost every operation on the eye may, with advantage, be performed under the influence of cocaine, which may be even preferred to chloroform in ocular surgery. The latter may be reserved for enucleations of the eye, ablations of tumors, blepharoplasties, etc. In nervous subjects, in children, chloroform will be indispensable, but even then cocaine will be very useful. The eye is the organ the sensibility of which is the last paralyzed by chloroform. The least touch, if the narcosis is not complete, provokes reflex movements rather inconvenient for operative maneuvers. When the eye has been previously anesthetized by cocaine, it will suffice to get the patient to inhale a few drops of chloroform, so as to obtund the general sensibility, and thus render an operation possible."

PARIS, 7th August, 1885.

THE next annual meeting of the British Medical Association will be held at Brighton, the president elect being Dr. Withers Moore.

A SOLUTION of atropine (1 to 1000) applied to mosquito-bites relieves the itching and shortens the duration of the papulæ.

Selections.

IS TRUE CROUP DIPHTHERITIC.—Such is the question which for years has proved a veritable apple of discord among pathologists and clinicians, and Virchow has recently cast it anew into the midst of the Berlin Medical Society. The name of this renowned pathologist lends such weight to his opinion that we subjoin some abstracts from his paper, as reported in the *Berliner klinische Wochenschrift* in order that our readers may know where he stands in regard to this important subject.

In 1847, he announced the proposition that, if one would divide the affections of the mucous membranes into comprehensive groups, he must distinguish three definite and distinct anatomical conditions, viz., catarrh, croup, and diphtheria.

Diphtheria is a process of mortification, seated in the substance of the tissue itself, and therefore creates no false membrane upon the surface. Yet, when apparently throwing out an exudation, it does so only by causing an exfoliation of the surface, and loss of substance in every case of such exfoliation. In a word, in most favorable cases, this process occasions ulcerations of the part affected. This view, which he still holds, occupies a foremost place among those conclusions at which he has arrived from observation.

Concerning the cause of this morbid process he holds the view that this is a parasite. He is of the opinion that these parasites have never been observed in any considerable numbers in croupous membranes. They first appear in the superficial layers, rapidly penetrating into deeper parts, not only into the submucous, but even into the muscular layers, or still more deeply. They thereby cause extensive irritation and swelling. It must not be forgotten that their starting point is in the surface, whence they work their way into the subjacent parts. Hence the assumption is easy, that instead of proceeding from the blood, as was once held, they are the product of contagion.

In contrast to this condition are the fibrinous exudates that merely rest upon the surface. Huge strips of false membrane that are often detached from the inner surface of the trachea and larynx never leave an ulceration behind.

Here, therefore, are two entirely distinct processes. One is a something which has its seat on the surface, without, however, the surface taking any intimate part in the process. This something becomes detached and cast off, yet leaves no trace in the shape of an ulceration. The other is a something that has it seat in the superficial tissues, causes their death and consequent exfoliation, and leaves a loss of substance in its wake.

However, in taking the ground that croup and diphtheria are distinct processes, he would not assert that there may not be a diphtheritic laryngitis; but he would assert that in diphtheritic croup there is no false, that is, fibrinous membrane. To be sure, shreds of tissues may be found which at first glance look like shreds of false membrane; yet, on careful inspection, these are seen to be portions of necrosed and exfoliated mucous membrane. The evidence of necrosis and exfoliation of tissue is that on which he would base a differential diagnosis. If one would not accept this, he knows of nothing else whereupon to base a difference.

These are emphatic utterances, and leave no doubt as to Virchow's position. The controversy concerning the nature of croup and its relations to diphtheria has been waged long and hotly, and is not much nearer settlement now than when it first began. In the last century English observers were already at variance on this point. Home and Johnstone both wrote treatises upon it, maintaining the non-identity of the two affections. In the early part of this century, Bretonneau strenuously supported the view that they were manifestations of one and the same morbid process. French opinion has seemed in the main to indorse the conclusions of Bretonneau, although the opposite has been ably maintained by MM. Brichetau, Desruelles, Emangard, and Blaud, and in the prize essays of MM. Vieusseux and Jurine, of Geneva. Likewise in Germany both theories have found ardent adherents. Niemeyer, Oppolzer, Letzerich, and others have coincided with Virchow, while Wagner asserts, "There is no sharp line of distinction between croup and diphtheria, but that in both the membrane is formed by a peculiar metamorphosis of the epithelial cells." Oertel and Klebs regard the two affections as expressions of the same morbid cause. Steiner, in Ziemssen's Cyclopedia of Medicine, says:

"The attempt to distinguish croup and diphtheria as two entirely distinct diseases has been unsuccessful. . . . Indeed there are many good reasons for supposing that

these two affections are only varieties and modifications of one and the same process."

In England opinion is still divided. West's and Reynolds' Systems of Medicine uphold the non-identity of the two; while Eustace Smith, in his admirable work on "Disease in Children," expresses himself decidedly as of the opinion that in croup, diphtheria has preceded it, although it may not have been detected. In our country Meiggs and Pepper coincide with the English writer just mentioned. On the other hand, Austin Flint, sr., J. Lewis Smith, and others take the opposite ground.

Thus it is evident how diverse are the conclusions of the ablest minds of all countries. One party maintains that membraneous or true croup is a local inflammatory process, always produced by exposure to cold or wet; whereas the other is as positive that it is diphtheritic. It would seem that the Latin proverb, *via media, via recta*, is particularly applicable to this discussion, and that in some instances croup is primary and independent of diphtheritis—that in others it is secondary to that disease.—*Journal American Medical Association.*

PEDIATRIC APHORISMS.—The following aphorisms of Prof. Letamendi are quoted in *El Dictatem* of May 10, 1884:

1. Children are like the mob; they always complain with reason, although they can not give the reason why they complain.

2. Always look at the lips of a pale and sickly child; if they are of a deep red color, beware of prescribing tonics internally. At the outset you will congratulate yourself, but in the long run you will repent of having employed them.

3. As a general rule, a sad child has an encephalic lesion; a furious child, an abdominal one; a soporific child has both, though indistinctly defined.

4. An attendance on children produces in the mind of an observant physician the conviction that the half, at least, of adult transgressors are so through morbid abdominal influences.

5. A sunny living-room, a clean skin, and an ounce of castor oil in the cupboard, these are the three great points of infantile hygiene.

6. To dispute the clinical value of tracheotomy in croup is a waste of time to no good purpose. Croup, or no croup, if there be a positive obstruction to respiration in the larynx it is but according to reason to open a way for sub-larygngeal respiration. In the days of more knowledge and less nonsense tracheotomy will be ranked among minor surgical operations.

7. Dentition is a true multiple pregnancy in which the uterus and its fetuses become petrified in proportion as they grow. It is not the direct or the eruptive pressure, but the lateral pressure of all together that is the most dangerous. It is from this that so many cerebral symptoms appear which can in no way be relieved by incisions of the gums. The only resource against the danger of this transverse pressure is to give the child more nourishment, in the hope that as the general condition is bettered the local condition will also improve.

8. If the incisors of the first dentition are serrated it is bad, but if those of the second are the same it is worse. It foretells a number of lesions arising from deficiency of mineral salts in the tissues. There is only one exception, and it is an important one. When the serrated incisors are seen in strong children in whom the fontanelles have closed early, it is a sign of robust constitution. Instead of a number of small and sharp dentitions, there are a few large blunt ones.

9. To regard the eruption of the teeth as the sole factor in the general process known as the first dentition is to perpetrate a sort of a medical synecdoche. Children get their first teeth because they are at the same time getting a second stomach and second intestines.

10. The body of a child possesses such a degree of "acoustic transparency" that in cases of necessity or convenience auscultation may be practiced with the hand, converting it into a telephone which will reveal as much to the physician as even his ear could do.

11. In practice it is well to distinguish with decision a case in which disease is due to lumbricoids from one in which lumbricoids are due to disease. For in the former case anthelmintics are of service, but in the latter they do harm.

12. Since, until a child is able to talk clearly, his relations with the physician are purely objective, it is very necessary that we should study as carefully as do the veterinarians the exact correspondence between lesions and the expression of the patient.

13. If you wish to cure rapidly and well joint-disease in infants you must treat them as you would a conflagration—douches, douches, and more douches, until you have succeeded in extinguishing them.

14. The entire system of the moral relation between children and adults should be changed. To speak to them incorrectly merely because they can not pronounce well; to excite their fears and arouse their weird imaginations simply because they are easily frightened and impressionable; to stimulate their vanity because they are naturally inclined to be vain; these and other similar actions are not only wrong but absurd.

15. There is finally a danger to women of contracting a vice as yet unregistered in the annals of concupiscence—mastomania, or the sensuality of nursing. When this physiological act degenerates into a vice, nursing becomes so frequent as to be nearly continuous, and the result is ruin to both mother and child. Finally, the physician must here, as always, be at once wise, discreet, of good judgment, and firm.—*Birmingham Medical Review.*

THE BACILLUS OF FINKLER AND PRIOR.—The foreign correspondent of the Boston Medical and Surgical Journal says that Finkler and Prior, in a recent pamphlet, gladly welcome any discussion of their views. They draw attention to the following points:

1. We confirm the existence of Koch's comma-bacillus in the contents of the intestines and in the dejections of the patients who suffered from cholera Asiatica in Genoa in 1884.

2. We have discovered the comma-bacillus in the feces of cholera-nostras patients; we have thus found them directly, by means of the microscope, and we were the first to breed them in pure culture fluids as well as the first to describe them.

3. These two kinds of comma-bacilli are vibrios which form genuine spirillæ. In reference principally to their morphological rank, as well as in relation to the changes which they may undergo in form, the two vibrios are alike.

4. The conduct of both in cultures agrees in most kinds of culture procedures. Differences manifest themselves only under very closely related conditions of culture surfaces and temperature, and declare themselves not so much by *absolute* as rather by far more *relative* peculiarities, namely, greater energy of growth and of vitality of the vibrio of cholera nostras.

5. Of the physiological characteristics of these vibrios, we especially denote, and have already done this in an earlier paper, their marked capability of resistance against drying, against different temperatures, and against putrefaction.

6. We maintain the possibility of a condition of tenacity and consider it probable that this tenacity of existence resembles that of one of the spores of some other micro-organism of similar formation.

7. Both vibrios are pathogenic.

8. The pathogeny of Koch's vibrio is greater than that of the *Finkler-Prior* vibrio; this also is only a question of *relative* difference.

9. The pathogenic character does not manifest itself in all kinds of animals; far more, rather, a great number of animals possess immunity against both vibrios. They manifest themselves only under certain conditions. The animals which are susceptible to and the conditions which are favorable for the action of the bacilli are the same for both vibrios.

10. The evidences of the disease called forth by the vibrios in the bodies of animals, possess a certain similarity to those of cholera in human beings; they are, however, not specific, but in the guinea-pig can be imitated by means of other infectious matters and by chemical poisons.

11. The causative connection between the comma-bacillus and cholera Asiatica is most probably shown by the constant presence of the bacillus, but it is not to be considered as certainly proved by experiments on animals. The casual connection between the comma-bacillus (discovered by us) and cholera nostras was probably shown on the one hand by the constant discovery of the micro-organism, on the other by the extreme similarity of the symptoms of cholera nostras to those of cholera Asiatica, as well as in the biological pathogenic peculiarities of the two comma-bacilli.

12. The two vibrios can reach the blood after being injected into the intestines and are secreted in the urine. The sojourn of the Koch bacillus in the body of an animal creates an increase in the rapidity of its growth, so that thereby a still greater similarity between the two vibrios is attained in their demeanor in cultures.

TREATMENT OF CERTAIN FORMS OF SYPHILIS.—Dr. A. Cameron read a paper before the Liverpool Medical Institute (Medical Press and Circular) on the above subject. He contended that the ordinary modes in use in the present day failed in many cases to eradicate the disease, they smothered up the symptoms, but left the germs behind,

which might give trouble hereafter. He advocated a return to the old mode of medication by herbal decoctions or tisanes. He cited the following cases: The first was that of a woman about forty years of age, who acquired syphilis from her husband twelve years ago. She never noticed any lesion of the genital organs, but says she was for a time really blind, and has marks of rupia in various parts of her body. The nose is quite destroyed, and the nasal cavity presented the appearance of burnt cork; two incisor teeth have gone, and the ulceration was extended up the forehead, and was spreading on the cheeks. In fact, the face was being as it were gnawed away. She was extremely weak, and unable to work for her living. The following mixture was given to her: Radix sarzæ, ℥xij; stillingia sylvatica, ʒiv; liq. guiaci, ℥ij; radix glycerhizæ, ℥ij. About one-fourth of this was put in a quart of water and boiled down to a pint, and taken as follows: A tumbler hot in the morning, the patient afterward lying in bed covered with clothes, a tumbler cold in the middle of the day, and one hot at night after going to bed. Generous diet was ordered. After some months of this treatment a perfect cure was effected.—Another case cited was that of a woman, aged thirty. She had formerly suffered from an ulceration of the neck which had been cured by large doses of iodide of potassium, but she fell into a state of extreme debility, with sore throat, intense neuralgic pains in the head, double internal squint, and a hard rising in the palate, which ulcerated on the surface. She was put under the same treatment as the other patient, and after a few months' perseverance a perfect cure was effected. In conclusion, he urged that this treatment should be carried out thoroughly and concientiously, or it would be of no use, and he expressed his want of confidence in the compound decoctions and fluid extracts generally sold.

PTOMAINES.—Professor L. Brieger, of Berlin, has recently published a monograph in which he gives the results of his own researches into the interesting subject. From fibrine digestion he obtained a poisonous substance named by him *peptoxi*. It crystallizes with difficulty, and is readily soluble in water. It gives precipitates with most of the common alkaloid reagents. A few drops of a dilute aqueous solution suffice to kill frogs within fifteen minutes. Those experimented on become paralyzed, and were insensible to irritations. Symptoms of paralysis also showed themselves in rabbits after subcutaneous injection of the solution. From human and other decomposing muscle flesh he succeeded in isolating a new poisonous substance, *eurindine*. It crystallizes in hydrochloric acid combination. From the mother liquor of nuridin a second base, *neurine*, was obtained ($C_5H_{13}NO$), which has a poisonous action on both-warm and cold-blooded animals. A few milligrams act on cats. 0.04 gram pro kilo kills rabbits with a constant train of symptoms, among which are profuse secretions from the mucous surfaces and powerful clonic convulsions. Atropine was an efficient antidote to the poison. Three bases were obtained from decomposing fish that had been exposed to the air for five days: (1) *Entylediamine* ($C_2H_{12}NO_2$). Frogs showed a certain tolerance of this; rabbits were scarcely affected by it; but in the case of mice and guinea-pigs it produced a copious secretion from the nose, mouth, and eyes, dilatation of the pupils, and dyspnea. (2) A substance analogous to muscarine. Injected subcutaneously into rabbits it produced copious secretions and excretions, dilatation of the pupils, and convulsions. Atropine prevented the action of the poison. (3) *Gadinine* ($C_7H_{17}NO_2$), which appeared to be innocuous.

From five kilos of cheese that had been decomposing in water for six weeks neuridine and trymethylamine were obtained. Neuridine and dimethylamine were also obtained from decomposing glue. The writer remarks in conclusion that the ptomaines form two classes—the poisonous and the non-poisonous—and that we are no longer justified in imputing chemical putrid infection to *none sepsi*. The formation of chem ical poisons by the actions of formed or unformed ferments is now proved. The character of the soil determines the synthetic power of the bacilli of decomposition. Thus putrid muscle gives rise to thepoisonous neurine, and putrid fish to the poisonous muscarine. These substances give rise to symptoms that have their analogues in certain forms of disease. The writer is now directing his attention to the ptomaines to be obtained from the human body as it undergoes different forms of decomposition.—*Medical Press and Circular*.

THE Council of the British Medical Association report the number of members on the roll to be 11,249.